

WHAT IS CLAIMED IS

1. A method for calibrating illumination of a back-light module of an image scanning device by employing a longitudinally-extending calibration zone to obtain a back-light source with a uniform distribution of illumination in a longitudinal direction of the image scanning device, comprising the following steps:
 - (a) activating the back-light module to form a light source and project light onto an optical scanning module of the image scanning device;
 - (b) driving the optical scanning module in the longitudinal direction;
 - (c) obtaining a signal representing illumination of at least one selected pixel of the calibration zone in the longitudinal direction with the optical scanning module;
 - (d) comparing the signal with a pre-set reference to obtain a comparison result and manipulating the comparison result to determine a calibration parameter; and
 - (e) calibrating the illumination of an image with the calibration parameters in scanning an original document.
2. The method as claimed in Claim 1, wherein the illumination signal of each selected pixel comprises signals associated with red, green and blue colors.
3. The method as claimed in Claim 1, wherein the calibration parameter comprises parameters for red, green and blue colors.
4. The method as claimed in Claim 1, wherein the selected pixels comprise all pixels of the calibration zone in the longitudinal direction.
5. The method as claimed in Claim 1, wherein the selected pixels comprise pixels of every given number of pixels of the calibration zone in the longitudinal direction.

6. The method as claimed in Claim 1, wherein the reference is stored in a memory unit of the image scanning device in advance.

7. A back-light module for an image scanning device comprising:

a casing having an open bottom;

tubular lighting elements;

a light guide plate arranged between the lighting elements for spreading light from the lighting elements over a surface and projecting the light from the surface; and

a frosted light-transmissive plate attached to the open bottom of the casing, light from the light guide plate transmitted through the frosted plate for being projected to a document supporting plate surface of the image scanning device.

8. The back-light module as claimed in Claim 7, wherein the frosted plate comprises a frosted board made of acrylic material.